04/29/2013

West Fertilizer – ASPECT results

Upon request from the Texas Commission on Environmental Quality (TCEQ), EPA personnel were mobilized to conduct air monitoring activities. On April 19, 2013 within hours of the fire and explosion, the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft was used to collect airborne infrared (IR) images and data for the West Fertilizer fire near West, Texas. The ASPECT detected ammonia at volumetric concentration of 6 to 10 part per million (ppm) by volume at approximately 650 feet downwind or southeast of the facility at approximately 800 to 1000 feet above ground level. The ammonia concentration is less than the Acute Exposure Guideline Level - 1 (AEGL-1) for exposure up to 8 hours of 30 ppm. The AEGL-1 is the airborne concentration, expressed as ppm of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort or irritation. However, the effects are not disabling and are transient and reversible upon cessation of exposure. Inhaling of ammonia can cause rapid onset of a burning sensation in the eyes, nose and throat according to the Agency for Toxic Substances and Disease Registry (ATSDR) Medical Management Guidelines (MMGs). In addition, the MMG noted that upper airway swelling may lead to airway obstruction.

West Fertilizer – Air Monitoring Results

EPA has continued air monitoring with three stationary sites in the residential area to the west and north of the West Fertilizer facility. The air was monitored for levels of ammonia (NH_3) and volatile organic chemicals (VOCS). Air levels of ammonia and VOCs on a one hour average concentration were typically was not detectable. Air levels of ammonia and VOCs on a four and eight hour average concentration were consistently less than 0.04 and 0.01 part per million (ppm), respectively. The ammonia concentration of 0.04 ppm is less than the chronic Reference Concentration (RfC) for ammonia of 0.1 ppm. The chronic RfC allows for continuous exposure up to a lifetime without harm, including sensitive individuals. The VOC monitoring was collected for health and safety purposes to inform the response to potential presence of VOCs in air. This evaluation indicates that ammonia potentially released by the West Fertilizer facility do not present harm to people living in West, TX.

West Fertilizer Fire – Pesticide Sample Results

Due to the potential release of pesticides stored on the facility by the fire and explosion, the EPA collected soil samples in the immediate vicinity of the site from public access areas owned by the City of West and the West Independent School District on April 21, 2013. A total of 14 composite soil samples from 12 locations were collected and analyzed for the herbicides Atrizine™ (2-chloro-4-ethylamino-6-isopropylamino-s-triazine), Grazon™ (Picloram and 2,4-D) and Roundup® (Glyphosate), and the fungicide Propiconazole (1-[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl-methyl]-1H-1,2,4-triazole). The analysis found no detectable levels of Atrizine™, Grazon™, Roundup® or Propiconazole in the soil samples. This evaluation indicates that pesticides potentially released by the West Fertilizer facility do not present harm to people living in West, TX.